

December 17, 1952

Dr. Charles W. Todd
E. I. DuPont de Nemours & Co.
Chemical Dept/ Expt. Station
Wilmington 98, Delaware

Dear Dr. Todd:

Perhaps you will recall your visit with me a year ago May. Have you set up a program in microbiological or biochemical genetics?

I am writing in the hope that you may be able to refer me to a department of your company that may be able to answer some technical questions. I had thought that you might be sufficiently familiar with the problem yourself that you could more properly phrase these questions to your technical service.

My problem concerns the use of polyvinyl or other polymers in place of glass for containers in bacteriological work. There are three applications where glass is unsatisfactory: 1) the storage of chemicals and solutions to avoid ionic contamination; 2) the mailing of bacterial cultures, especially pathogens, and 3) in centrifuge bottles, especially at higher speeds or in larger volumes than 10 or 20 ml. Commercially available materials, as far as I know, are all unsatisfactory for bacteriological work because they cannot be sterilized in the only way feasible for routine work, by steam at 15 psi. I have heard vague reports that polyethenes have now been produced which can be sterilized by moist heat at temperatures about 120-125° C. (intervals of 15 - 20 mins), but am not aware of their commercial use for laboratory "glass"-ware. My most urgent need is for centrifuge bottles of 50-500 ml. capacity. If necessary, I would use Boiling water for sterilization, but this would be less satisfactory. Can you help?

Yours sincerely,

Joshua Lederberg
Associate Professor of Genetics